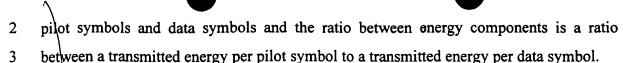
WHAT IS CLAIMED:

1. A wireless receiv	er comprising:
a receiver for receiv	ing a wireless signal; and
a demodulator for g	enerating a log-likelihood ratio as a function of a scale factor;
wherein the scale fa	ctor is a function of a ratio between energy components of the
wireless signal	

- 2. The wireless receiver of claim 1 further comprising a processor for determining the scale factor as a function of the ratio between energy components of the wireless signal.
- 3. The wireless receiver of claim 2 wherein the scale factor is determined independently of relative strengths and number of multipaths in the received wireless signal.
- 4. The wireless receiver of claim 1 further comprising a processor for determining the scale factor as a function of the ratio between energy components of the wireless signal, a noise variance in received data symbols of the received wireless signal, and a noise variance in received pilot symbols of the received wireless signal.
- 5. The wireless receiver of claim 4 wherein the scale factor is determined independently of relative strengths and number of multipaths in the received wireless signal.
- 6. The wireless receiver of claim 1 further comprising a memory for storing a look-up table such that an index into the look-up table for retrieving the scale factor is a function of the ratio between energy components of the wireless signal.
- 7. The wireless receiver of claim 6 wherein the function is a square root of the ratio between energy components of the wireless signal.
 - 8. The wireless receiver of claim 1 wherein the received wireless signal comprises

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- 9. The wireless receiver of claim 1 wherein the receiver comprises a demultiplexer for providing a data signal, representing data symbols, and a control signal, representing pilot symbols, and wherein the ratio between energy components is a ratio between the energy per pilot symbol to the energy per data symbol.
- 10. The wireless receiver of claim 9 wherein the receiver comprises a control signal detector for recovering from the control signal a value for the ratio between the energy per pilot symbol to the energy per data symbol.

11\ A wireless receiver comprising:

a memory for storing a look-up table, such that an index into the look-up table for retrieving a scale factor is a function of a ratio of energy components of a wireless signal; and

a decoder, responsive to a signal modified by the retrieved scale factor, for decoding a received form of the wireless signal.

- 12. The wireless receiver of claim 11 wherein the signal is a log-likelihood ratio.
- 13. The wireless receiver of claim 11 wherein the function is a square root of the ratio between energy components of the wireless signal.
- 14. The wireless receiver of claim 11 wherein the received form of the wireless signal comprises pilot symbols and data symbols and the ratio between energy components is a ratio between a transmitted energy per pilot symbol to a transmitted energy per data symbol.
- 15. The wireless receiver of claim 11 wherein values of the look-up table are determined independently of relative strengths and number of multipaths in the received form of the wireless signal.

j	6. The wireless receiver of claim 11 further comprising a control signal detector
for reco	vering from the received form of the wireless signal a value for the ratio between
the ener	gy per pilot symbol to the energy per data symbol.

17 A wireless receiver comprising:

- a memory for storing a look-up table, wherein one column of the look-up table comprises values that are a function of a ratio of energy components of a wireless signal, and a second column of the look-up table provides associated values of a scale factor; and a demodulator, responsive to retrieved values of the scale factor, for demodulating a received form of the wireless signal.
- 18. The wireless receiver of claim 17 wherein the demodulator generates a loglikelihood ratio as a function of the scale factor.
- 19. The wireless receiver of claim 17 wherein the function is a square root of the ratio between energy components of the wireless signal.
- 20. The wireless receiver of claim 17 wherein the received signal comprises pilot symbols and data symbols and the ratio between energy components is a ratio between a transmitted energy per pilot symbol to a transmitted energy per data symbol.
- 21. The wireless receiver of claim 17 wherein values of the look-up table are determined independently of relative strengths and number of multipaths in the received form of the wireless signal.
- 22. The wireless receiver of claim 17 further comprising a channel estimator for providing a value representative of the ratio between energy components for use by the memory.
- 23. The wireless receiver of claim 17 further comprising a control signal detector for recovering from the received form of the wireless signal a value for the ratio between the energy per pilot symbol to the energy per data symbol for use by the memory.

24. Ą	wireless	receiver	comprising
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- a demodulator for demodulating a received signal; and
- a processor for determining a scale factor as a function of a ratio of energy components of a wireless signal, and for providing the determined scale factor to the demodulator for use in demodulating a received form of the wireless signal.
- 25 The wireless receiver of claim 24 wherein the demodulator generates a log-likelihood ratio as a function of the scale factor.
- 26. The wireless receiver of claim 24 wherein the received form of the wireless signal comprises pilot symbols and data symbols and the ratio between energy components is a ratio between a transmitted energy per pilot symbol to a transmitted energy per data symbol.
- 27. The wireless receiver of claim 24 wherein the scale factor is determined independently of relative strengths and number of multipaths in the received wireless signal.
- 28. The wireless receiver of claim 24 wherein the processor determines the scale factor as a function of the ratio between energy components of the wireless signal, a noise variance in received data symbols of the received form of the wireless signal, and a noise variance in received pilot symbols of the received form of the wireless signal.
- 29. The wireless receiver of claim 24 wherein the scale factor is determined independently of relative strengths and number of multipaths in the received wireless signal.